# Global Debt Dynamics: What Has Gone Wrong

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## *Global Debt Dynamics: What has gone wrong*

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# GLOBAL DEBT DYNAMICS: WHAT HAS GONE WRONG[1]

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Abstract

This paper analyses the nature and characteristics of global debt dynamics in the post global financial crisis (GFC) period. First, we attempt to map the ways in which debt has been moving from sector to sector, and from one group of countries to another within the global economy. By capturing this inter-sectorial, inter-national, inter-regional movements of global debt we aspire to contribute to a more comprehensive understanding of global debt and its mode of operation. Second, we attempt to analyse what is wrong with global debt dynamics, i.e. we examine the broken link between what global debt was supposed to do and what it does. Here, we point to three interrelated dynamics: the accumulation of unproductive debt, growing inequalities of income and wealth, and the increase in privately-created, interest-bearing money.

## 1. INTRODUCTION

To borrow from William Shakespeare something is rotten in the state of the global economy. By any account, global debt has reached historically unprecedented levels and keeps rising, as proportion of many countries' GDP. Any attempt to supress credit bubbles in any asset class or economic sector, at national or international level, seems often to lead to more credit bubbles at different asset classes and/or sectors within and across national economies. Financial globalisation and loose monetary policy since the Global Financial Crisis (GFC), seem to encourage such an evolution.

The dangers that these conditions present for the global economy are hard to overstate. It took only six years after the Global Financial Crisis, for debt to start increasing again in advanced economies, while emerging economies, especially their non-financial corporation sector, have

[1] This paper is part of the introduction to our forthcoming special issue on 'Global Debt Dynamics in Emerging and Developing Economies' in the journal *The World Economy*. The special issue is based on contributions made in the inaugural workshop of the Global Debt Dynamics Initiative - GDDI (https://globaldebtdynamics.net) that took place in Brighton on 26 May 2016. The authors would like to warmly thank the participants to this workshop for their constructive discussions and the editors of *The World Economy* for their support. Andreas Antoniades would like to acknowledge funding from the 'Research Opportunity Fund' of the University of Sussex and the 'Centre for Rising Powers and Global Development' of the Institute of Developing Studies.

been increasing their debt since the break-out of GFC. Thus a new global financial crisis could be on its way, based on similar forces and dynamics that gave birth to the 2008/09 crisis. Debt relationships at all levels of life (private, communal, local, national, regional, international, global) are augmented, incorporating ever more aspects and dimensions of human and social life. No matter whether it is a study loan, a local council bond, a 'new donors' bilateral loan or a national 'bailout programme' more and more human activity is incorporated in global debt markets as future cash flows. What drives the seemingly unstoppable build-up of global debt remains an empirical question.

Equally worrying is the fact that mainstream economic analysis has been only slowly coming to grips with this global political economy of debt, despite the important tradition of analysis that focuses on the role of credit and debt in macroeconomics (see for example Stiglitz and Greenwood, 2003) and on boom and bust patterns of credit (e.g. Minsky, 1986; Kindleberger, 2000). A lot of ground has been covered since the 2008/09 crisis. Private debt, from a close to non-entity in established macroeconomic analysis before the GFC, is now (sometimes) taken into consideration as an important macroeconomic factor. Similarly, there have recently been some attempts to examine the role and impact of total debt (the sum of government, households and non-financial corporation debt) on economic dynamics and stability (e.g. IMF, 2016). But these initiatives are in their infancy. Thinking about and analysing the inter-related nature of sectorial, national and international debt dynamics remains underdeveloped and still takes place mostly outside the domain of economic policy making (see Turner 2016; Keen, 2017; Vague, 2014).

The task of grasping this inter-related debt dynamics becomes more complex by the fact that key parameters of the post WWII global economy seem to change. There seems to be under way a significant transformation of the vulnerability/resilience nexus that defined the relationship between advanced and developing economies in the post WWII period (Antoniades, 2016). The gravity of the global economic system has been moving eastwards, and emerging and developing economies demonstrated until now unexpected resilience to shocks coming from advanced economies. Examining the interplay between global debt dynamics and the rebalancing of the global economy is sine qua non for understanding the new political economy of global debt and how it can be dealt with. How have changes in the vulnerability/resilience nexus between Advanced Economies and Emerging and Developing Economies (EDE) affect the global politics and economics of debt? Have they been translated to better terms of borrowing for emerging and developing economies? What new vulnerabilities were created in the post GFC phase? How significant is the development of local-currency bond markets and what difference have these markets made and can make? Can the EDE's 'new resilience' endure a cycle of monetary tightening and hard currency appreciation in advanced economies? What alternative strategies are there for emerging and developing countries?

To grasp and connect some of these dots we need to understand what is going on with global debt, and this paper attempts to offer a first sketch of how we can do so. In the first section we offer a brief history and mapping of the ways in which debt has been moving from sector to sector, and from one group of economies to another since the GFC. Making clear the interrelated nature of sectorial, national and global debt dynamics is critical for understanding the 'bubbling effect' of global debt dynamics, i.e. the continuous emergence of new credit bubbles as a result of policies attempting to supress existing credit bubbles. Yet, these

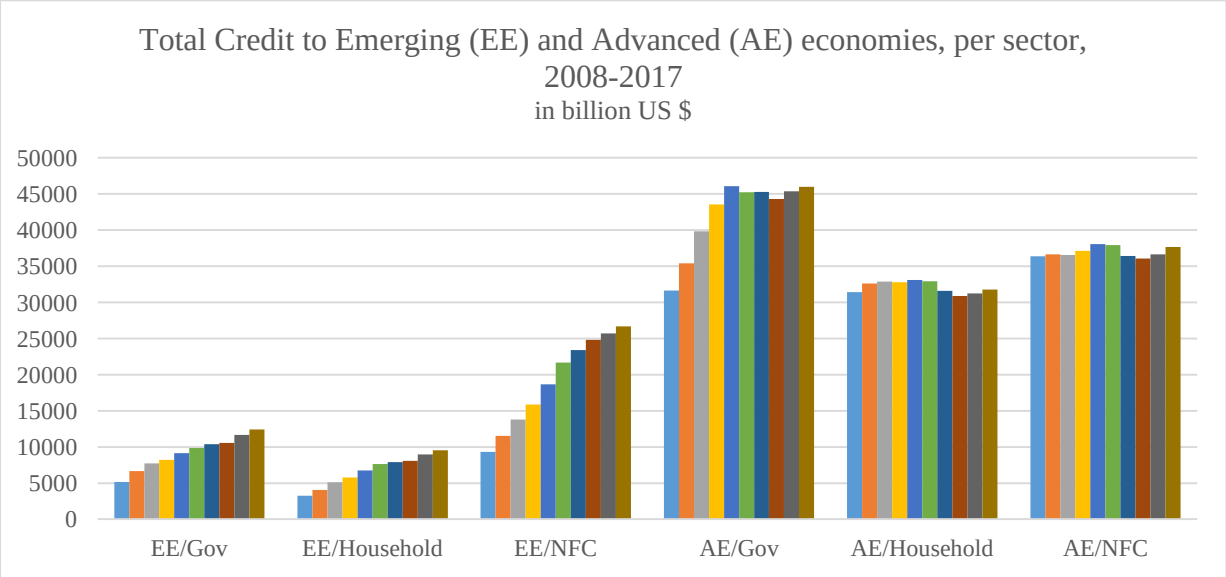
analytics of the 'bubbling effect' do not tell us much on why this happens. So the second section engages briefly with three explanations of the bubbling effect, what global debt is *used for*, growing inequalities and the transformation of money. Rather than choosing among different explanations, our aim here is to bring different pieces of a larger global debt jigsaw together. By doing so we hope to offer a more comprehensive picture of some of the different dynamics driving global debt today.

## 2. GLOBAL DEBT DYNAMICS: BUBBLING AND BALLOONING

The 2008/09 Global Financial Crisis had its epicentre in the financial and household sectors in advanced economies. The build-up of excessive vulnerabilities and leverage in these sectors came close to trigger a total collapse of the global financial system, and set the foundations for the slow and fragile recovery experienced after the break-out of the crisis. To avert the collapse of their financial and economic systems governments in advanced economies stepped in and bailed-out their financial sector. These actions were complemented by (often insufficient in scale) economic stimuli programmes, adopted by advanced and emerging economies' governments around the world as well as the adoption of unorthodox monetary policies by several central banks (including quantitative easing and negative interest rates). This global response led to a massive shift of debt within the global economy. The attempt to suppress the credit bubble in the financial sector, may have averted the collapse of the global financial system, but did not solve the problem. Debt moved from the balance sheets of the financial sector to government balance sheets.

This shift of liabilities from the private to public sector led to a second massive shift of debt flows in the global economy. The attempt to suppress the 'ballooning' public debt dynamics in advanced economies, led to two new debt bubbles, one domestic and one international. First, austerity policies in advanced economies led to a shift of debt from the public to the private sector, especially households. Thus, austerity policies not only did not address the problem of debt, but in many cases they accentuated it by leading to lower or negative economic growth, and thus to deteriorating debt to GDP ratios. This time however debt did not only shift along sectorial but also across geographical lines. Thus, during the same period of attempted deleveraging in advanced economies, a huge new bubble popped-up in the private, and specifically in the non-financial corporation sector of emerging and developing economies. In particular, from $9 trillion in 2008 the debt of nonfinancial corporation in EDE almost tripled reaching $25 trillion in 2015. This is a change from 57 to 104 per cent of GDP (Figure 1). To a smaller extent similar trends are observed in the public and household sectors. A short period (2013-2015) of deleveraging in the public sector in advanced economies has been accompanied by expanding public debt in emerging economies, where in less than ten years it was doubled, from $5.1 trillion in 2008 to $12.4 trillion in 2017. Similarly, the small period of deleveraging in advanced economies' household sector happened in a context where household debt in emerging economies tripled, from $3.2 trillion in 2008 to $9.5 trillion in 2017 (Figure 1; all data from BIS).

FIGURE 1




Source: Compiled by the authors based on data from BIS.

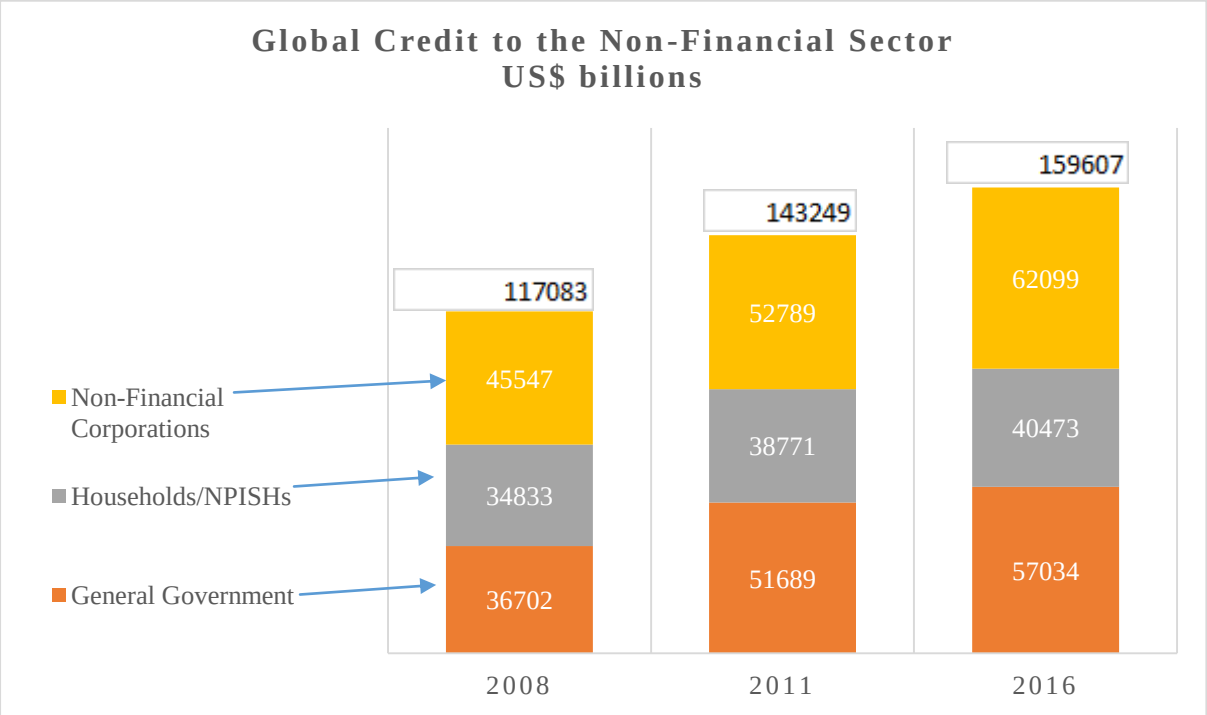
Note: Each column represents a year, staring with 2008. The figure for 2017 (i.e. last column) refers to credit outstanding at the end of the second quarter. The data include all sources of credit per country, independent of the country of origin or type of lender.

The most worrying sign of all is that despite all these attempts to reign in global debt dynamics, the increase in global debt continues unabated. For instance, in the US, all categories of household debt are back on the rise, and in June 2017 household debt at $12.84 trillion was above its 2008 peak (Federal Reserve Bank of New York, 2017). Similarly, in the UK the household debt-to-income ratio has started to rise again, and household debt is projected to reach 153% of household disposable income by the start of 2022, thus approaching its 2008 160% high (Office for Budget Responsibility, 2017). China too has been experiencing an unprecedented surge in non-financial sector debt, what Keen (2017, p.100) calls the biggest credit-driven boom in human history. The period 2008-2016, the Chinese private non-financial sector debt rose 80 percentage points relative to GDP, while in 2016 lending to the private sector at 16 per cent was growing twice as fast as nominal GDP. In particular, domestic credit to the private sector from 125 per cent of GDP in 2011 was 183 per cent in 2017 and is expected to exceed 200 per cent in 2021. Similarly, household debt from 28 per cent of GDP in 2011 was 46 per cent in 2017 and is expected to exceed 60 per cent by 2022 (IMF, 2017b).

Most importantly, at a global level IMF estimates that total gross debt (i.e. public and private debt together, excluding the financial sector debt), at $152 trillion in 2015, had reached 225 per cent of world GDP. The Bank for International Settlements (BIS) estimates that total debt to the non-financial sector as a percentage of GDP has increased from 166 in 2007 to 213 per cent in the first quarter of 2017 (BIS, 2017; data refer to a sample of 29 advanced and

emerging economies). The Institute of International Finance (IIF) estimates that in 2016 global total debt, at US$ 215 trillion, had reached 325 per cent of global GDP (IIF, 2017). Regardless of the difference in available estimates, all institutions reporting data on global debt agree that total global debt is at an all-time high and is rising. Furthermore, this rise is not driven by any single type of debt. Rather all types of debt have been increasing. As seen in Figure 2 total credit to the non-financial sector (public and private) increased from US$117 trillion at the end of 2008 to 159.6 trillion at the end of 2016, an increase of more than 35 per cent (42.5 trillion). Between 2008 and 2016 general government debt increased US$20 trillion, non-financial corporation debt increased 16.6 trillion and household debt increased 5.6 trillion. The highly accommodative global monetary environment has exacerbated these dynamics. The unwinding of these accommodative support mechanisms and any move towards monetary tightening at a global level could be expected to dangerously strengthen indebtedness dynamics globally. The current trends in the US, the UK and China mentioned above is a good indication of how fragile is the current state of the global economy.

FIGURE 2




Source: Compiled by the authors based on data from BIS.

Note: Credit outstanding at December 31 of each year.

Thus, any deleveraging attempt within the global economic system seems to move debt around (between sectors, countries or groups of countries) rather than signifying a sustainable reduction in debt or leverage and their negative implications (Turner, 2017). Furthermore, this moving of debt around most times has an amplifying vicious cycle effect. For instance, the increase of household debt triggered by austerity policies, may ultimately have a negative impact on aggregate demand (see for instance, Mian and Sufi, 2015; Stockhammer, 2015;

Keen, 2017), which could have a negative knock on effect on economic activity, which negatively affects tax revenues. This 'necessitates' further spending cuts to deal with the new holes in the state budget that amplify the negative debt dynamics. It should also be mentioned here that at the other end of those individuals, sectors, and countries that manage to pass on, rollover or increase their debts, are those that fail to do so and, in most cases, have their livelihoods crashed.

Of course, the absolute amount of debt in an economy tells us (close to) nothing. Debt is a precondition for economic development. Access to money is an important factor for developing a competitive economy and sustainably raising living standards. Developing stable debt markets with affordable interest rates for developing countries is, and has been, critical for enhancing their capacity to meet their developmental targets. For instance, in a joint report prepared by the World Bank, the IMF and the OECD (2015, p.6) it is suggested that

> on the infrastructure side, it is estimated that an additional US$1 trillion to US$1.5 trillion of annual investment in low and middle income countries will be required through 2020 to meet the infrastructure demand from industry and households. On the SME side, the credit gap for formal SMEs…was estimated at $0.9 to 1.1 trillion as of 2013. Another $0.5 to 0.6 trillion represented the credit gap for the estimated 60 to 70 million formal microenterprises…

Part of this investment will be funded by government spending or by private investment, but an important part will be funded by debt. Clearly there is still much need for access to affordable credit and debt around the world. What we deem problematic in our analysis above therefore is not the levels of debt themselves. What is problematic is that the growth of global debt described above does not seem to relate so much with sustainable development and prosperity, but with struggling households and worsening social conditions in low and middle classes of relatively rich countries, as well as with the intensification of global financial crises, that happen ever more often and with ever more severely disruptive socio-economic, political and environmental consequences (Gills, 2010).

## 3. WHAT WENT WRONG

To understand what is going on with global debt we need to focus on the broken link between what debt was supposed to do and what it does. Below, we focus on three potential explanations. Our aim is not to offer a comprehensive analysis but rather to expose how these explanations relate with each other and with current debates on the status of the global economy. Put differently, we aim to outline what dots these explanations may represent in the grant scheme of global debt dynamics and how they can be connected.

### *Too much of the wrong sort of debt*[2]:

For debt to be a force for prosperity and development, as it should be, it needs to be used productively. Thus credit should be financing investments that increase productivity and/or

[2] We borrow this title from chapter 4 of Turner's thoughtful book *Between Debt and the Devil* (2016).

can generate future income flows that will allow the repayment of the debt generated. Yet, as Turner (2017, p. 61) notes 'in most modern banking systems, most credit does not finance new capital investment. Instead, it funds the purchase of assets that already exist and, above all existing real estate'. For instance, in the US in August 2017 only 22 per cent of the banks' loan portfolio went to non-financial corporations, while real estate (commercial and residential) absorbed 45 per cent of banks' loans (Fed, 2017). Similarly, in the UK during the same period NFCs received only 15 per cent of the banks' loan and securities portfolio, whereas 51 per cent was absorbed from the residential real estate sector (BoE, 2017). Even in regions where credit allocation appears to be much more balanced, such as the Eurozone, residential mortgages absorb almost the same amount of credit as NFCs (approximately 40 per cent) (ECB, 2017). Of course it is not only mortgages that underlie the 'too-much-of-the-wrong-short-of-debt' trend. Interbank loans and consumer credit are also types of loans that absorb a considerable amount of bank financing without always feeding productive activities. As evident from the GFC the complex web of transactions between financial corporations as well as excessive household indebtedness creates significant vulnerabilities and risks in national and international financial markets. The unprecedented rise of private debt in China demonstrates that these are not problems confined in advanced economies.

It is clear therefore that a substantial part of global credit does not finance productive activities. Rather the opposite, it sustains or generates activities that may have a negative impact on the incentive structure and stability of productive economic activity both nationally and globally. These dynamics seem to suggest that the main problem with global debt has been the (unproductive) way in which the majority of this debt has been used. Rather than financing productive investment that would generate sustainable growth, productivity and future income flows, it has been financing consumption and asset-price inflation. The world keeps pilling-up the wrong type of debt. This explanation could be pushed further to cover parts of the current debate on secular stagnation. The falling or stagnant productivity observed in many advanced economies may partly relate with the existing debt dynamics and their context. The emphasis of bank financing on less productive activities, the increasing role of stock markets as sources of investment finance (a rather more 'short-sighted' form of financing), as well as the rebalancing of the knowledge production structure away from the state and towards the private sector, may well have affected the capacity of economic actors to acquire access to stable capital support needed to pursue more ambitious, 'breakthrough-oriented' technological innovation (Gordon, 2016).

Corden (1990), Griffith-Jones et al (1992) and Gorton and Ordonez (2016) have explored the importance of the sectorial destination of credit (whether it goes to consumption or investment, and if to the latter to sectors with higher productivity and/or with increasing productivity) as a determinant for the credit's impact on growth along with the modalities of credit (e.g. long or short term). As Gorton and Ordonez (2016) point out, there can be good booms or bad booms. In their paper they study 34 countries over 50 years and show that credit booms are not rare; the average country spends over half its time in a boom and a boom is, on average, ten years long. This suggests that the seeds of a crisis are sewn a decade before the boom ends in a financial crash. But, not all credit booms end in a crisis; some do (bad booms) while other do not (good booms). They characterize good booms as those where productivity and economic growth increases are sufficiently high, to lead to a stable higher level of output to avoid reversals of capital flows and crises. Bad booms are those where

productivity increases are not sufficient, and the credit flows may lead to a sequence of booms and busts.

To sum up, this explanation focuses on the non-productive nature of debt generated. Global debt keeps pilling-up in part because a substantial part of this debt does not impact positively on productivity and does not create income streams that would allow the repayment of this debt. Rather the opposite. The non-productive use of debt generates asset bubbles, and rather perverse vested interests and incentive structures that hinder healthy economic activity and productivity. This explanation throws into sharp relief the failure of financial markets and the related, private and public, national and international, supervisory and regulatory regimes to secure an efficient allocation of credit resources and a sustainable growth of debt.

*A side effect of growing inequality*

The above account on the explosion of global debt focuses on the supply-side of debt dynamics, i.e. how banks channel their credit resources. Yet, this tells us very few things about the demand-side of debt dynamics. What drives the demand for debt? What explains the explosion of global debt that we have seen from the late 1980s onwards? Why economic actors borrow to finance activities that will not generate the additional income required to pay off this debt? Why people have willingly been walking in the unsafe and precarious realm of indebtedness? These questions accept no easy answer. Yet there is a growing consensus in academic and policy cycles that in order to understand debt dynamics we need to analyse the pattern of growing income and wealth inequalities that defined capitalist societies over the last decades. There is a number of important and interacting dynamics at work here. First, a significant change in income distribution that was characterised by a significant decline in labour income, as a share of total income (total income is the aggregate of labour income, e.g. wages, and capital income, e.g. dividends and capital gains). (IMF, 2017a; Stockhammer, 2015; ILO, 2008; 2011; Jacobson and Occhino, 2012; for trends in absolute income mobility in the US see Chetty et al, 2017). Considering that for the majority of households the main source of income comes from wages rather than capital, as well as the fact that capital income is mostly concentrated among the top quartiles of income distribution, the above trend translated in a rapid increase in household income inequalities (i.e. differences in total household income). A number of factors fed into and intensified these inequality dynamics, such as off-shoring and integration in global value chains, technological progress, financialization, and the decline in labour union density and bargaining power (see ILO, 2011; Stockhammer, 2013; IMF, 2017a). The trend in absolute income inequalities, since the 1980s is indeed staggering and has contributed to widening wealth inequalities. As the IMF notes, at a global level '[t]he bottom 50 percent of the global population has near-zero wealth and almost half of global wealth is held by the top 1 percent' (IMF, 2017a, p. 6).

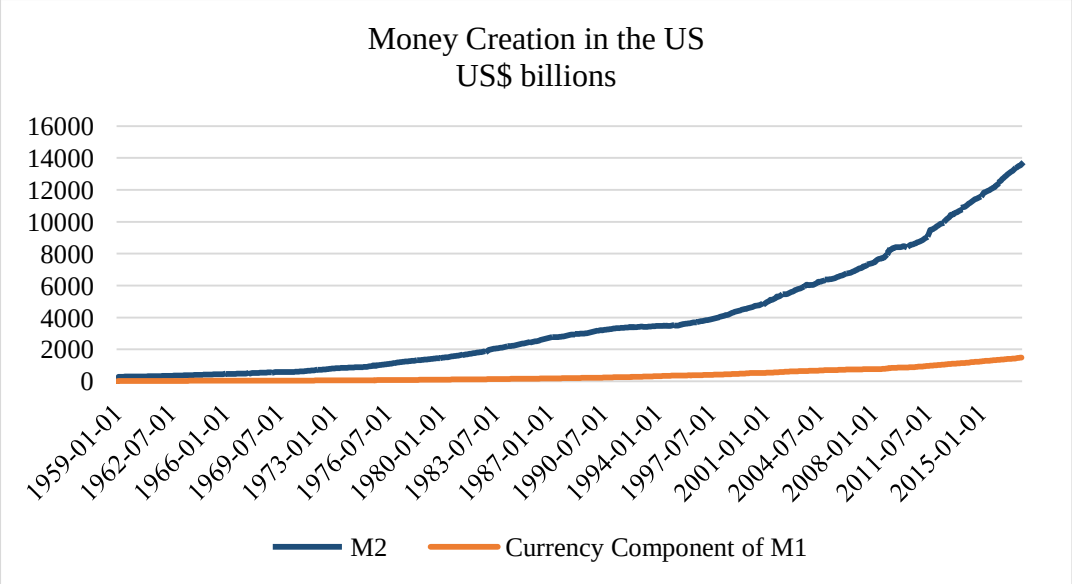
Furthermore, the above transformation in income distribution and the observed income polarisation between the top and bottom quartiles of income distribution have had a significant side effect on aggregate and effective depend. While lower income households tend to spend the majority of their income and save little, households at the top of income distribution have a much lower propensity to spend and consume, and save much more of their income in comparison to low-income households. Thus, rising income inequality has also a negative impact on aggregate demand (Mian and Sufi, 2015; Turner 2016).

It is through these systemic 'cracks' of stagnant wages, falling labour income, increased inequality and problems with sustaining aggregate demand that credit's reign in global economy began. So long as 'real money' was not available in the quantities needed to sustain the living standards and production patterns of our modern consumer societies, plastic/virtual money emerged to keep the socioeconomic system and its respective socio-political arrangements afloat. In this sense, the pilling up of global debt that we have been experiencing over the last decades is to a great extend a consequence of the intensification of income inequalities since the 1980s (see also Panitch and Konings 2009; Rajan 2010; Stockhammer, 2015; Turner 2016).

*The transformation of money*

The above demand-based explanation on income inequalities complements the first explanation, which focused on the supply side of debt. These explanations offer important insights on the sources of current debt dynamics. Equally important is the way in which this build-up of debt has transformed the very nature and mode of operation of global and national economies. In this regard, the above debt build-up does not only indicate a new global political economy based on debt accumulation, but also signifies a transformation of a monetary regime. As mentioned above global credit is now between 2.5 and 3.5 times the global GDP. The increasing share and centrality of credit and debt as money signifies a shift in the nature of money in the global economic system. This is a radical rebalancing of money away from base money and towards credit and virtual/electronic, deposit-money. Yet the most important aspect of this transformation is not so much 'what form the money takes' but who issues/creates this money. Here we have seen a significant rupture with the past. Today, the great majority of money is created by private banks (McLeay et al 2014). For instance, in the US only 11 per cent of money in circulation consisted of coins and paper notes, i.e. $1.5tr out of $13.6tr (Fed, 2017). The same percentage in Eurozone is 10 per cent (ECB, 2017), while in the UK and China is only 3 and 4.1 per cent respectively (BoE, 2017; PBoC 2017). Figure 3 offers an illustration of the historical evolution of this trend in the US.

FIGURE 3




Source: Compiled by the authors based on data from the Federal Reserve

Note: Monthly data, Seasonally Adjusted.

Of course there are significant differences in the degree of autonomy of the banking system across different countries. But despite these differences it is apparent that the great majority of money created in global economy today comes from private banks *and* bears interest. The magnitude of this phenomenon, i.e. privately-created, interest-bearing money, seems historically unprecedented. This indeed represents a 'new mechanics' of money in global economy. A new mechanics that requires ever more productive use of debt and/or ever faster growth rates to allow the repayment of the ever increasing amount of money in circulation that requires interest payment. Examining the far-reaching implications of this transformation for our socio-economic and environmental systems remain beyond our purposes here. Yet the point we want to stress is that without understanding and accounting for this new mechanics of money in the global economy it is impossible to understand and deal effectively with the destabilising trend of ever-increasing global debt. This insight used to be the prerogative of a small number of heterodox economists a couple of years ago. Now, after the global economic crisis, it commands wider consensus. For instance, the former governor of the Bank of England, Mervyn King, notes: 'the fragility of our financial system stems directly from the fact that banks are the main source of money creation' (2016, p.8); similarly, the former chairman of Britain's Financial Services Authority, Adair Turner argues that '[a]t the core of financial instability in modern economies…lies the interaction between the infinite capacity of banks to create new credit, money, and purchasing power, and the scarce supply of irreproducible urban land' (2016, p. 6). Notwithstanding, the discussion on the nature and implications of this new regime of money creation is rather limited and takes place mostly outside policy-making circles.

## 4. CONCLUSION

Based on the above analysis, it is clear that the sustainability of the global economy and our socio-economic systems depends on how the issue of global debt will be construed and dealt with. We need to ask the question what kind of a problem global debt is. Is it an 'economic' problem (credit utilisation), a 'social' problem (inequality) or an issue of 'social technology' (how money is created)? Our analysis above suggests that it is all these three together. This is important in policy-making terms. Trying to address the issue of credit utilisation without addressing the issues of inequality and money creation may kick the can down the road but the problem will re-emerge. Similarly, attempting to address the problem of inequality without dealing with credit utilisation and money creation will not succeed in restoring the sustainability of our socio-economic system. New thinking is needed to understand and get out of this conundrum. We hope our paper makes a small contributions towards this end.

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